
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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FLUORSPAR IN THE THIRD QUARTER 1996

China recently held its latest round of bidding for export licenses. Approximately 400 companies bid on the 1 million tons allocated for export under China's quota system. Preliminary information puts the export license fee at about \$20 per ton, which is down from the level of \$23 per ton for the previous year. Coupled with lower freight rates, the delivered price of Chinese acidspars (c.i.f., Gulf of Mexico) should drop to around \$137 per ton in 1997, and may go even lower in the second half of the year.

It appears that 1996 will prove to be a robust year for Mexican producers. The production estimate for 1996 calls for total fluorspar output to be about 590,000 tons. This is Mexico's highest level of production since 1990. Increased fluorspar production has been driven by increased hydrofluoric acid (HF) production, which is reflected by increases in U.S. imports from Mexico. The United States has imported as much HF in the first three quarters of 1996, as it imported all of 1995. Not surprisingly, the increased level of imports is approximately equal to the lost production capacity of Elf Atochem North America's HF plant in Calvert City, KY, which was closed in early 1996.

The International Fluorspar Conference 1997 is scheduled for March 10-13, 1997, in Vail, CO. The conference will include

presentations on global supply and end-use trends, global shipping, handling, and quality issues. For information contact Dave Thomas, Elf Atochem North America, at (215) 419-7831.

There were no sales from the National Defense Stockpile (NDS) in the third quarter, but large amounts of material previously sold were moved from NDS depots. According to the Defense National Stockpile Center's monthly report "Summary of Commodities," 210,000 tons (232,000 short dry tons (sdt)) of acid grade and 16,700 tons (18,400 sdt) of metallurgical grade was shipped during the third quarter.

The total fiscal year 1996 NDS sales were 113,000 tons (125,000 sdt) of acid grade and 15,500 tons (17,100 sdt) of metallurgical grade. Under the proposed fiscal year 1997 Annual Materials Plan, sales of 91,000 tons (100,000 sdt) of acid grade and 136,000 tons (150,000 sdt) of metallurgical grade are planned. On December 11, 1996, the Defense National Stockpile Center awarded 32,700 tons (36,000 sdt) of acid grade to Seaforth Mineral & Ore Co., Cleveland, OH, and Sogem, New York, NY, for an approximate value of \$3,000,000. The material sold was from the Memphis, TN, depot.

TABLE 1
SALIENT FLUORSPAR STATISTICS 1/

(Metric tons unless otherwise specified)

	Third quarter 1995	Fourth quarter 1995	First quarter 1996	Second quarter 1996	Third quarter 1996	Total year to date 1996
Shipments	W	W	W	--	--	W
Imports for consumption	146,000	122,000	179,000	118,000	127,000	424,000
Value per ton, c.i.f. U.S. port, acid grade	\$126.00	\$131.00	\$140.00	\$141.00	\$145.00	\$142.00 2/
Value per ton, c.i.f.U.S. port, metallurgical	\$101.00	\$107.00	\$96.00	\$97.00	\$99.00	\$97.00 2/
Exports	5,870	6,510	9,180	6,950	17,500	33,600
End of quarter stocks: consumer 3/	74,900	92,000	105,000	103,000	117,000	117,000
Fluorspar equivalent of imported hydrofluoric acid 4/	28,000	18,100	31,000	39,800	34,600	105,000
Fluorspar equivalent of imported cryolite	630	1,680	1,840	2,430	1,750	6,020
Quarterly reported fluorspar consumption	124,000	135,000	143,000	119,000	140,000	402,000

W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits.

2/ Average value for year to date 1996.

3/ Does not include material purchased from the National Defense Stockpile by traders or indirect consumers.

4/ Does not include hydrofluoric acid from foreign trade zone.

TABLE 2
CONSUMPTION OF FLUORSPAR BY END USE AND ASSAY RANGE 1/
(DOMESTIC AND FOREIGN IN THE UNITED STATES)

(Metric tons)

End use or product	Second quarter 1996			Third quarter 1996			1996 Year to date
	More than 97% calcium fluoride	Not more than 97% calcium fluoride	Total	More than 97% calcium fluoride	Not more than 97% calcium fluoride	Total	
Hydrofluoric acid and aluminum fluoride	105,000	--	105,000	128,000	--	128,000	364,000
Basic oxygen furnaces	--	3,710	3,710	--	2,480	2,480	9,330
Electric furnaces	W	5,450	5,450	W	5,650	5,650	14,300
Other uses or products 2/	3,210	1,540	4,750	3,100	1,100	4,190	14,300
Total	108,000	10,700	119,000	131,000	9,220	140,000	402,000
Stocks, end of quarter	96,900	5,820	103,000	107,000	10,100	117,000	117,000

W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes acid grade used in electric furnaces, enamel, glass and fiberglass, steel castings, and welding rod coatings.

TABLE 3
U.S.IMPORTS FOR CONSUMPTION OF FLUORSPAR, BY COUNTRY 1/ AND VALUE 2/ 3/

(Metric tons unless otherwise specified)

	Third quarter 1995		Fourth quarter 1995		First quarter 1996		Second quarter 1996		Third quarter 1996		Total year to date	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Containing more than 97% calcium fluoride:												
Austria	--	--	--	--	--	--	--	--	175	\$58	175	\$58
China 4/	59,300	\$7,630	82,800	\$11,000	146,000	\$20,700	48,600	\$7,110	98,700	14,300	293,000	42,200
France	18	9	73	39	18	9	--	--	36	19	54	28
Germany	--	--	--	--	--	--	4	5	3	5	7	10
Japan	88	11	--	--	--	--	--	--	--	--	--	--
Mexico	16,300	1,760	6,700	918	3,580	506	4,550	631	5,810	788	13,900	1,930
Morocco	--	--	114	32	--	--	--	--	--	--	--	--
South Africa	46,700	6,000	15,600	1,840	20,500	2,510	42,800	5,760	15,900	2,270	79,300	10,500
United Kingdom	--	--	--	--	--	--	--	--	8	17	8	17
Total	122,000	15,400	105,000	13,800	170,000	23,800	96,000	13,500	121,000	17,500	387,000	54,700
Containing not more than 97% calcium fluoride:												
Canada	--	--	--	--	53	16	70	23	83	28	206	67
China	--	--	8,370	1,020	--	--	--	--	--	--	--	--
Mexico	23,500	2,380	8,830	820	9,300	883	21,600	2,070	6,010	6,010	36,900	3,530
Total	23,500	2,380	17,200	1,840	9,350	889	21,700	2,100	6,090	6,090	37,100	3,600

1/ Imports for consumption include imports of immediate entry, and warehouse withdrawals.

2/ C.i.f. at U.S. ports.

3/Data are rounded to three significant digits; may not add to totals shown.

4/ Data does not agree with published Bureau of the Census data due to adjustments made by the U.S. Geological Survey.

Source: Bureau of the Census.

TABLE 4
IMPORTS FOR CONSUMPTION OF HYDROFLUORIC ACID 1/

(Metric tons unless otherwise specified)

	Third quarter 1995		Fourth quarter 1995		First quarter 1996		Second quarter 1996		Third quarter 1996		Total year to date 1996	
	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)	Quantity	Value 2/ (thousands)
Canada	26	\$63	17	\$57	17	\$71	32	\$105	39	\$99	88	\$275
France	21	21	18	20	55	59	54	57	107	124	216	240
Germany	4	21	35	82	50	96	20	45	23	73	93	214
Japan	136	543	112	435	79	286	174	643	138	519	391	1,450
Mexico	18,500	17,000	11,900	10,700	20,500	18,800	26,200	24,600	22,800	21,300	69.5	64,700
Total	18,600	17,700	12,100	11,300	20,700	19,300	25,500	25,400	23,100	22,100	70,200	66,900

1/Data are rounded to three significant digits; may not add to totals shown.

2/ C.i.f. at U.S. ports.

3/ Less than 1/2 unit.

Source: Bureau of the Census.